

Science for Global Health

Here are representative examples of scientific and training successes supported by FIC during the past several months.

Directly Observed Therapy in Populations with Drug Resistant Tuberculosis (DOTS)

A 1996 pilot program in Orizaba, Mexico provided an opportunity to evaluate the impact of DOTS in a region where 21% of the new cases were resistant to at least one anti-tuberculosis drug and 3% were multi-drug resistant (MDR) over a five-year period. The data collected demonstrated that DOTS could rapidly reduce transmission and the incidence of both drug-susceptible and drug-resistant tuberculosis. The case rates of MDR tuberculosis were also reduced; however, the fatality rate was highest (12%) for patients infected with these strains. The implication? In a developing country with a moderate rate of drug resistant tuberculosis, DOTS can rapidly reduce the transmission of both susceptible and resistant organisms. However, additional measures, such as drug susceptibility testing and standardized or individualized therapy, are needed to improve clinical outcomes.

Does DOTS Work in Populations with Drug Resistant Tuberculosis?

Kathryn DeRiemer, Ma. de Lourdes García García, Miriam Bobadilla del Valle, Manuel Palacios Martínez, Areli Martínez Gamboa, Peter M. Small, José Sifuentes Osornio, Alfredo Ponce de León, *The Lancet* (in press).

Recalculating Schistosomiasis Impact on Global Burden of Disease

Schistosomiasis remains one of the world's most prevalent infections. Yet controversy persists over the magnitude of its impact on the global burden of disease. To develop an evidenced-based reassessment of schistosomiasis-related disability, researchers performed a systematic review of available data on disability-associated outcomes in all forms of schistosomiasis. The data indicate, collectively, that schistosomiasis is significantly associated with anemia, chronic pain, diarrhea, exercise intolerance and undernutrition leading to total disability estimates 4-30 times greater than the previous DALYs. In place of 0-5% disability weight assigned to schistosomiasis by WHO estimates, an estimated 2-15% disability appears evident in the average person with schistosomiasis.

Re-gauging the cost of chronic helminthic infection: Meta-analysis of disability-related outcomes in endemic schistosomiasis.

Charles H. King MD MS, Katherine Dickman BA, Daniel J. Tisch MPH PhD, *The Lancet* (in press).